BUILDING ON THE PAST

The Indiana Conservation Partnership's record speaks for itself. In 1990, farmers grew only 13 percent of Indiana's corn and soybeans using conservation tillage, a practice that reduces non-point source water pollution from agricultural land. Today, Hoosier farmers use conservation tillage to grow 44 percent of our corn, soybeans and small grains. Since 1987, Indiana's average annual cropland erosion rate dropped 31 percent, from 4.5 to 3.1 tons per acre. State program dollars spent on conservation returned an estimated $5 for every $1 spent. Ninety-six percent of land-users who received financial assistance to address soil erosion problems said the funded practices significantly reduced soil erosion. Ninety-four percent of those land-users said they could not have addressed their erosion problems without the assistance of the Indiana Conservation Partnership.

Yet, much remains to be done. In Indiana, many lakes and streams are still clogged with algae, weeds, and sediment from erosion or excess nutrients. Fecal coliform bacterial contamination does not allow full body contact in many Indiana rivers. Several Indiana cities, including Ft. Wayne and Indianapolis, spend significant funds to treat river water to render it drinkable.

Even though these concerns exist, Indiana's Soil and Water Conservation Districts (SWCDs) receive the least funding of all midwestern states to address natural resource concerns. Indiana's SWCDs are subdivisions of state government lead by 5 local officials. In 1999, Ohio's SWCDs received almost $12 million of State funds, while Indiana's SWCDs received a little over $1 million. In other surrounding states, SWCD funding ranged from $3 to $7 million.

At the same time, federal funds for conservation work have not been able to meet demands. Indiana landowners requested over $8 million from the USDA's Environmental Quality Incentives Program, but only a little over $2 million was available. EPA's Section 319 Program received over $8 million in requests, but only $4.5 million was available. The Indiana Department of Natural Resources' Lake and River Enhancement program experienced a similar shortfall. These numbers demonstrate Hoosiers' desire to address water quality and natural resource concerns. To succeed, they must have access to the necessary technical and financial assistance.

Clean Water Indiana, a new program created (but not funded) by 1999 legislation, calls for state resources to address polluted stormwater run-off, improve land management, and better utilize technical and financial resources. If funded, the Clean Water Indiana program will provide new staff that will offer much needed technical and managerial support. Technical staff will assist land-users in the planning and application of conservation practices to control polluted stormwater run-off from urban and rural sources. SWCD managerial staff will work locally to develop and coordinate conservation programs aimed at reducing water pollution.

With 97 percent of rainwater falling on private lands, Indiana relies upon the voluntary cooperation of landowners to implement conservation practices that effectively control polluted stormwater run-off. In many cases, the expense of implementing conservation practices is cost-prohibitive for the landowner. If funded, the Clean Water Indiana program will provide funds to share these costs with private landowners and will match, dollar for dollar, local funds provided to Soil and Water Conservation Districts to address polluted stormwater run-off concerns.

INDIANA CONSERVATION PARTNERSHIP

SWCD
INDIANA'S 92 SOIL AND WATER CONSERVATION DISTRICTS

DNR
INDIANA DEPARTMENT OF NATURAL RESOURCES

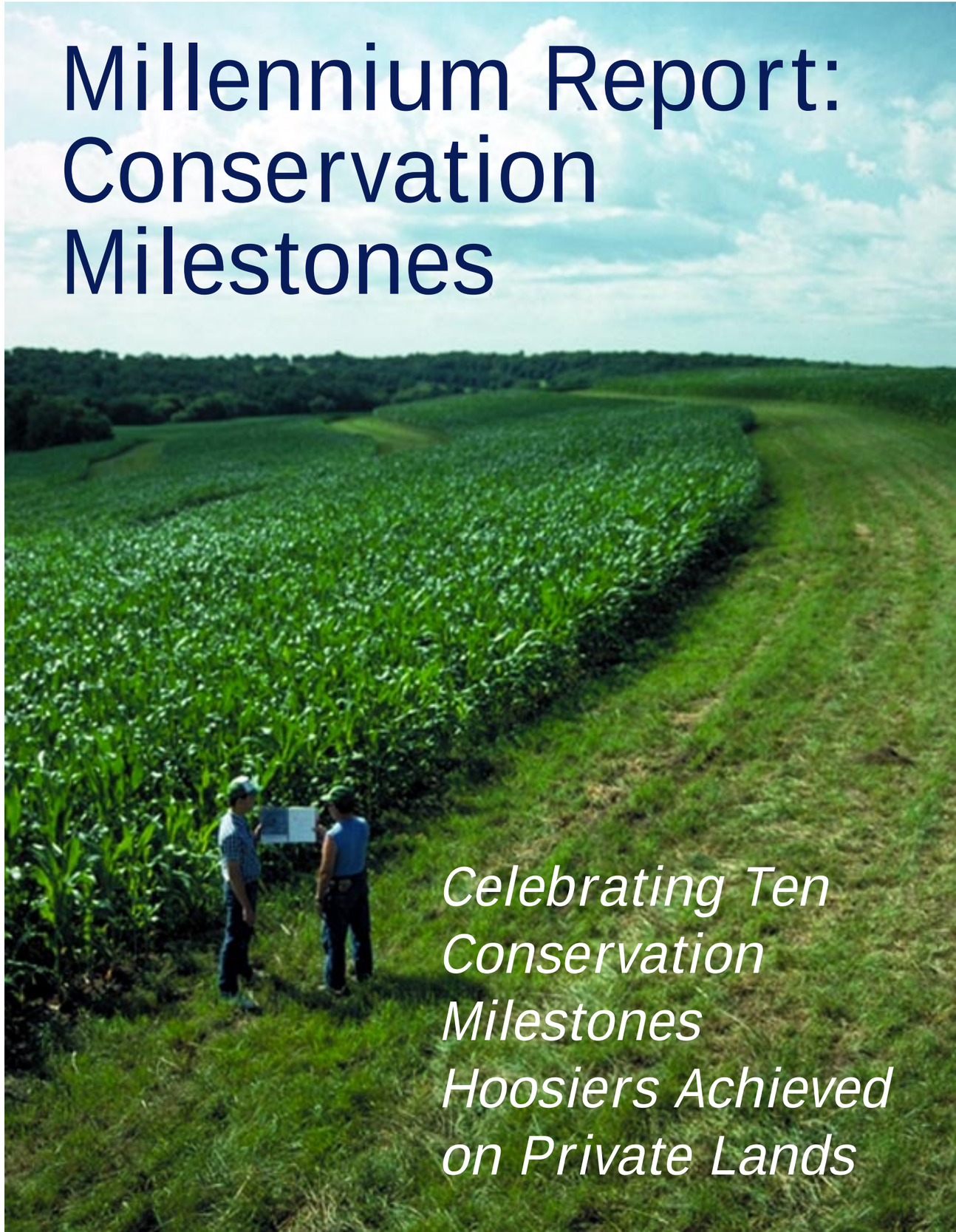
PURDUE UNIVERSITY COOPERATIVE EXTENSION SERVICE

USDA NRCS
NATURAL RESOURCES CONSERVATION SERVICE

IASWCD
INDIANA ASSOCIATION OF SOIL & WATER CONSERVATION DISTRICTS

Compiled by:
Purdue Cooperative Extension Service
Clean Water Indiana Education Program

Millennium Report: Conservation Milestones

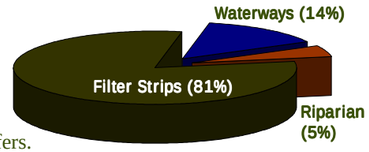


Celebrating Ten Conservation Milestones Hoosiers Achieved on Private Lands

1

6,050 MILES OF BUFFERS

Conservation buffers improve water quality by filtering stormwater run-off. These small strips of land average 20 to 30 feet in width and are permanently covered with vegetation including grasses, trees, and shrubs. Buffers, an effective component of a comprehensive conservation system, help maintain a productive, profitable, and responsible farm operation. Since 1997, Indiana landowners have installed more than 21,775 acres, or 6,050 miles, of conservation buffers. Laid end-to-end, these buffers would cover I-65 from Gary, Indiana to Louisville, Kentucky 11 times with a protective blanket of vegetation.



BUFFERS IN INDIANA

2

RESTORED WETLANDS

In the early 1800s, 5.6 million acres (25 percent) of Indiana was covered by wetlands. By 1990, nearly 86 percent of those wetlands were converted to farms, industry, or other uses. Today, a strong wetland restoration effort in Indiana has reversed the trend. Since the late 1980s, Hoosiers have enrolled more than 30,000 acres in the federal Wetland Reserve Program, Floodplain Easement Program, and U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program. In addition, private and community efforts have restored thousand of acres of wetlands through similar initiatives. These additional wetlands will help increase flood and run-off storage, purify surface water, and create wildlife habitat.

3

WATER QUALITY PROJECTS

IDNR's Lake and River Enhancement (LARE) program provides financial assistance to landowners, lake associations and others to reduce pollution from stormwater run-off. Since 1988, LARE has provided funding to 193 projects affecting 129 rivers, lakes, and streams and 61 watersheds in 48 Indiana counties. The federally funded EPA Section 319 Program and USDA's Environmental Quality Incentive Program (EQIP) provide cost-share assistance to landowners to apply conservation practices on their land that will help to improve water quality. Since 1997, 1,660 landowners representing 81 counties have utilized EQIP funds to implement land treatment practices.

4

CONSERVATION TILLAGE ON 44 PERCENT OF INDIANA'S CROPLAND

By definition, conservation tillage allows at least 30 percent of the soil surface to remain covered by crop residue to prevent erosion. Conservation tillage acreage numbers increased from 13 to 44 percent on all cropland during the 1990s, with no-till soybeans leading the way. Research shows that conservation tillage can decrease soil erosion by 50 percent or more. Other benefits include reduced tractor fuel, farm equipment and labor inputs, improved soil quality, improved air quality through carbon dioxide reduction, improved wildlife habitat, and increased farm profits.

TILLAGE TRENDS DURING 1990S

61% No-till Soybean

44% Cons. Tillage

18% No-till Corn

5

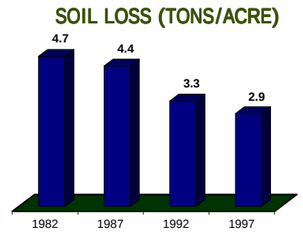
AQUATIC ECOSYSTEM PROTECTION

In the 1970s, accelerated plowing in marginal cropland areas resulted in soil erosion and stream habitat destruction. Major impacts from agriculture degraded over 40 percent of Indiana's 20,000 miles of permanent streams and rivers. The Indiana T by 2000 program helped lead to significant increases in conservation practices for land protection. By the mid-1990s, the quality of many lakes has improved dramatically where half or more of the surrounding farmland was in conservation tillage. Since 1980, wastewater treatment and agricultural conservation have reduced pollutants to the Wabash River by 25-50 percent. During this time, the overall fish community improved dramatically.

6

SOIL LOSS REDUCTION

Since the first dust storms swept through the Midwest in the 1930s, Hoosier landowners, conservation groups, and agencies have worked to reduce topsoil loss and return depleted Indiana farms to their former levels of productivity. Urban conservation, aimed at Indiana's expanding cities and towns, have further addressed reduction of sediment in streams and erosion challenges on residential and commercial properties. Organized state initiatives, such as the T-by-2000 program and its successor, the Clean Water Indiana program, have fostered cooperation between landowners and local, state, and federal agencies and groups to reduce soil losses.



7

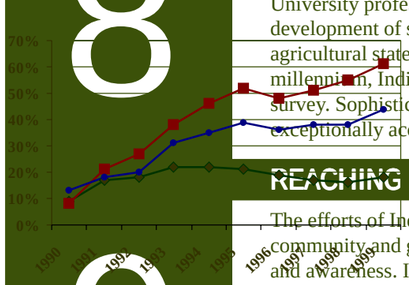
ESTABLISHING DIVERSE WILDLIFE HABITAT

Indiana experienced some remarkable comebacks in wildlife species this past century which can be attributed to improved water quality and restored habitat. Bald eagles had not nested in Indiana since the late 1890s. Today, there are 21 known eagle nests in the state. In 1999, peregrine falcons nested in eight locations including Fort Wayne and Indianapolis, and river otters produced offspring at eight sites along Indiana rivers. This past decade, hunters harvested an average of 40,000 whitetail deer per year compared to only 1,590 in 1951. In 1999, hunters harvested turkeys from 70 of the 74 counties they inhabit, and biologists predict an increase in habitat from formerly cropped lands will translate into more quail and pheasants.

8

95 YEARS OF SOIL SURVEYS

Since the first soil survey was completed in 1905 near Boonville, the state has pioneered the use and development of soil surveys to assist landowners in the wise use of soil resources. Dr. Thomas Bushnell, a Purdue University professor, pioneered aerial photograph use to simplify the development of soil surveys. In 1986, Indiana was the first major agricultural state to have all its counties completely surveyed. For the third millennium, Indiana has begun preparations for the next generation of soil survey. Sophisticated aerial photography is being digitized to provide exceptionally accurate computer-based soil maps.



9

REACHING FUTURE GENERATIONS OF CONSERVATION ADVOCATES

The efforts of Indiana conservation professionals give tomorrow's community and governmental leaders a head start on conservation ethics and awareness. Indiana Project WET, Hoosier Riverwatch, Project WILD, Project Learning Tree, Go FishIN, 4-H, Ag in the Classroom, Water Riches, Envirothon, field days, and tours all provide quality materials and training. Indiana's educators reach the youth who will become our future leaders. Through these efforts hundreds of thousands of students are educated each year. Many Soil and Water Conservation Districts, DNR staff, Cooperative Extension Service educators, teachers, students, and schools have won national awards for their environmental/education work.

10

WATERSHED PARTNERSHIPS

Hoosiers have formed partnerships to improve and protect water quality in over 60 watersheds across the state. Citizens, organizations, businesses, and agencies have created alliances to complete the work in many of the watersheds. Watershed partnerships are accomplishing their water quality improvement goals by promoting land use practices that make economical sense for landowners while reducing pollution of Indiana's lakes, rivers, and streams. This proactive approach allows partnerships to address the concerns of stakeholders while improving and protecting water quality for drinking water supplies, wildlife habitat, recreational users, and aesthetic values.